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FM 10-46

OF THE ARMY FIELD MANUAL

QUARTERMASTER SUPPLY DEPOT COMPANY (TOE 10-467)

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HEADQUARTERS, DEPARTMENT OF THE ARMY
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FIELD MANUAL

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QUARTERMASTER SUPPLY DEPOT COMPANY (TOE 10-467)

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CHAPTER 1

INTRODUCTION

1. Purpose and Scope

This manual provides information necessary for operation of the Quartermaster Supply Depot Company (TOE 10-467). It discusses mission, organization, capabilities, and employment; coordination with other units; and training, security, and field operations. This manual does not present inflexible rules of employment. It is neither mandatory nor restrictive. Rather, it suggests direction and offers guidance to the officers and key enlisted personnel of the company and to other personnel concerned with administrative support of combat.

2. Modification

Information in this manual represents policies, concepts, and position current at the time of preparation. Evolutions in concept and changes in organizational structure and employment will necessitate modification or revision. Field experience may also suggest changes or improvements. Users are requested, therefore, to submit recommendations direct to the Commanding General, Quartermaster Training Command, U.S. Army, Fort Lee, Va. Comments should be keyed to the specific page, paragraph, and line of the manual in which change is recommended. Reasons should be pro-

vided for each comment to insure understanding and evaluation.

3. Application

The material contained in this manual has been prepared and is presented in contemplation of nuclear warfare. It is applicable with minimum modification, however, to non-nuclear conditions. It is also applicable, within limits, to appropriate teams and detachments of the Quartermaster Service Organization (TOE 10-500). Additional information required for the performance of company operations is contained in publications listed in appendix I.

CHAPTER 2

THE UNIT

Section I. GENERAL

4. Mission

The quartermaster supply depot company is organized and staffed to establish and operate a quartermaster depot in the communications zone. The depot operated by the company can receive, store, and issue or distribute class I supplies; non-slatted packaged petroleum products; and all quartermaster class II and IV supplies, except air items. The installation operated by the company may be a quartermaster branch depot or the quartermaster section of a general depot.

5. Assignment

The company is assigned to the Theater Army Logistical Command. It is normally attached to a Headquarters and Headquarters Detachment, Quartermaster Battalion (TOE 10-536). It may be attached to a Headquarters and Headquarters Company, Quartermaster Depot (TOE 10-521).

6. Employment

a. The objective of the quartermaster supply system is quartermaster support to combat elements by rapid and responsive supply action rather than concentrations of supplies in the vicinity of the user. To attain

it quartermaster support has been echeloned into levels or categories.

- (1) Quartermaster direct support includes supplies and services furnished directly to using units. It is provided by quartermaster direct support units that operate supply points and service installations in both the combat zone and the communications zone.
- (2) Quartermaster general support includes supplies and services beyond the capability of quartermaster direct support units. It is provided in the combat zone by quartermaster general support units that operate Army depots and other service installations to extend quartermaster support on a wider basis. The counterparts of these units in the communications zone are the Quartermaster Supply Depot Company and the Quartermaster Equipment Maintenance Company (TOE 10-349).

b. Current concepts suggest the establishment of branch depots in the base section of the communications zone and general depots (depot complexes) in the advance section.¹ In keeping with those concepts, the Quartermaster Supply Depot Company may be employed to operate a quartermaster branch depot or the quartermaster section of a general depot.

- (1) In most cases the depot operated by the company will be assigned a distribution mission. In the advance section this mission is support of quartermaster units which serve the field

¹ Provision is made, however, for the establishment of general depots in the base section when required by conditions peculiar to the particular theater of operations.

army and advance section troops. In the base section this mission is support of quartermaster units which serve troops assigned or attached to the base logistical command.

- (2) The assignment of a reserve mission to the depot is also possible. The decision to assign the depot such a mission is normally made by higher headquarters and depends upon several considerations. Among these are geographical conditions, type of operation, deployment of units to be supported, and length of the supply line.

c. When augmented by one officer MOS 4419 and one noncommissioned officer MOS 764.70, the unit will have the increased capability of operating separately. To be included only by specific authorization of the Department of the Army.

Section II. ORGANIZATION AND PERSONNEL

7. Organization

The company is organized into a depot company headquarters, refrigeration platoon, and two storage platoons. Organization of the company is illustrated in figure 1. In most cases job titles listed in TOE 10-467 are completely descriptive of the duties involved. In some cases the general description of duties set forth in AR 611-101, AR 611-112, and AR 611-201 are applicable. In other cases additional or collateral duties may be assigned. This section discusses specific duties performed by key personnel in the operation of the quartermaster supply depot company.



Figure 1. Organization chart, quartermaster supply depot company.

8. Depot Company Headquarters

Depot company headquarters (fig. 2) consists of the office of the depot commander, a depot headquarters section, a stock control section, and a maintenance section. Personnel assigned to depot company headquarters fall into two general categories—those who perform functions of command and administration, and those who perform functions of coordination and control as determined by the specific mission of the company.

a. Office of Depot Commander. The office of the depot commander is the command element of the company.

- (1) The *depot commander* actively supervises the technical, administrative, tactical, and military training duties performed by the company. He is personally responsible for the effective and efficient operation of the depot. He is responsible for the layout and development of the depot area as well as for operations involved in the receipt, storage, stock accounting, and issue of supplies. He develops plans, policies, and procedures for the operation of the depot in accordance with missions and instructions received from higher headquarters. His primary objectives are to plan, direct, and supervise operations so that the company can—

- (a) Perform its assigned mission in the field.
- (b) Accomplish its own administration.
- (c) Maintain military standards of discipline.
- (d) Defend itself and its installations against enemy attack.

- (2) The depot commander has been provided with a staff of assistants to whom he may delegate authority to control and direct specified operations. These assistants are the chiefs of sections comprising depot company headquarters. The *section leader* in the depot headquarters section, for example, is normally delegated functions of command with duties incident to the housing, feeding, pay, discipline, and security of company personnel. When the company operates separately and is not attached to a battalion or depot headquarters, an operations officer may, with specific authorization of the Department of the Army, serve as the principal assistant to the depot commander for the technical operations of the depot. Assisted by an operations sergeant, when also authorized, he coordinates activities of the operating platoons and supervises the centralized stock accounting for the receipt, storage, and issue of supplies. The *maintenance officer* directs and supervises the organizational maintenance of organic company equipment. In each case, these officers are directly responsible to the depot commander for assigned duties and functions, and the depot commander retains full responsibility for the general management and proficiency of his unit.

b. Depot Headquarters Section. The depot headquarters section, under direction of a *section leader*, furnishes administrative, supply, mess, and communi-

cation services for the company. Its assigned personnel fall within the following functional areas:

- (1) *Administration.* The *first sergeant*, *company clerk*, and *personnel administration clerk* constitute the administrative element. The first sergeant normally coordinates all activities of the section, supervises administrative procedures within the company, and acts as the representative between the commander and company enlisted personnel. He calls all company formations and performs such other duties as may be assigned. As the company is normally dependent upon battalion headquarters for personnel services, the personnel administration clerk may be detached to battalion headquarters to maintain company personnel records under direction of the battalion personnel officer.
- (2) *Mess.* The *mess steward* supervises company mess operations and directs the activities of assigned mess personnel. Under the direction of the section leader and the first sergeant, he supervises the preparation and serving of company meals. He maintains required company mess records and reports.
- (3) *Supply.* Company supply activities are normally directed by the *supply sergeant* under the supervision of the section leader and the first sergeant. Assisted by the *supply clerk*, the supply sergeant is charged with the receipt, and issue of company supplies. He normally directs and controls operation of the company supply room. He may be assisted,

when necessary, by the *armorer*, whose principal duties involve the repair and servicing of organic company weapons.

- (4) *Communications*. Telephones are the primary internal communication means. The equipment is installed and maintained by the switchboard operators.

c. *Maintenance Section*. The maintenance section provides personnel to perform organizational maintenance on equipment assigned to the company only.

- (1) Section activities are directed by the *maintenance officer*. His chief assistants are the—

- (a) *Maintenance supervisor*, who directs and supervises all refrigeration specialists and technicians assigned to the company in the installation and organizational maintenance of organic refrigeration equipment. He also supervises the *quartermaster equipment repairmen* and their helpers in the organizational maintenance of materials handling equipment organic to the unit.

- (b) *Motor maintenance sergeant*, who supervises the operation and organizational maintenance of all vehicles organic to the company.

- (2) The *wrecker operator* assigned to the section also performs other vehicular maintenance duties as required. The *shop clerk*, working under the supervision of the maintenance officer, establishes and maintains job order files and prepares required maintenance reports.

d. *Stock Control Section.* The stock control section, under direction of the *stock control officer*, is the control point of company operations. Its normal functions are to—

- (1) Perform stock accounting and inventory control functions as directed.
- (2) Compute requirements in accordance with policy established by higher headquarters.
- (3) Receive and process requisitions and other supply documents, and transmit instructions to operating elements of the company.
- (4) Submit replenishment requisitions or initiate replenishment action as directed.
- (5) Submit periodic stock status reports as required.
- (6) Render assistance to storage platoons in taking of inventories and maintenance of a stock locator system.
- (7) Maintain a current and complete file of supply publications and other instructions or directives pertaining to depot operating policies and procedures.

9. Refrigeration Platoon

The refrigeration platoon (fig. 3) consists of a platoon headquarters and two identical operating sections. Each contains refrigerated semitrailers that provide mobile refrigeration and deliver perishable subsistence from the class I sections of this company to supported depots and supply points.

a. Platoon headquarters is the command element of the platoon. It consists of the *platoon leader*, *platoon sergeant*, and *reports clerk*.

b. The sections provide—

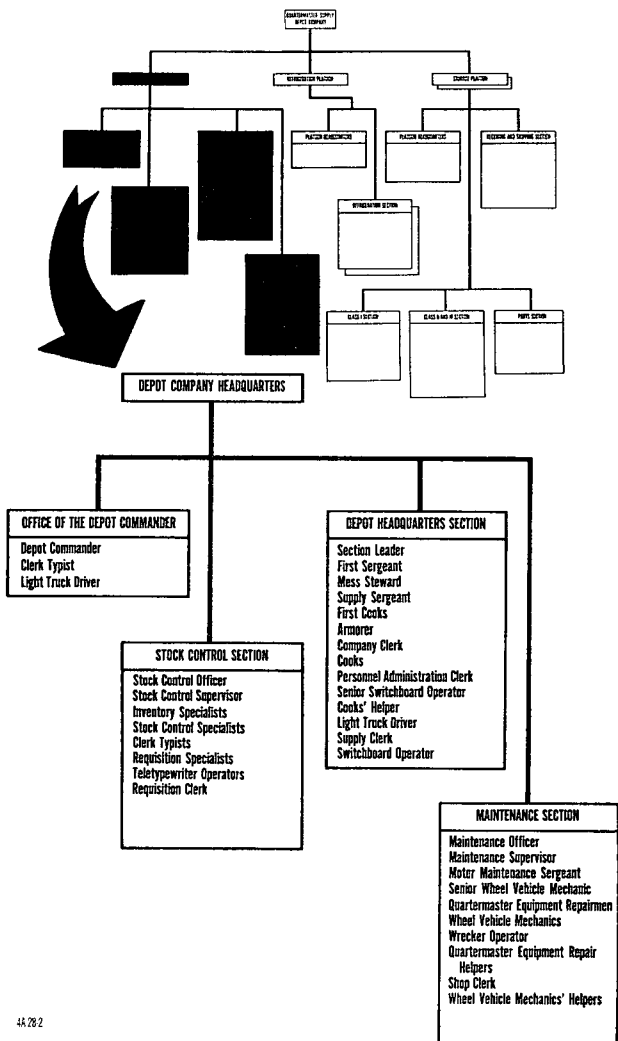
- (1) Operators to drive and perform first echelon maintenance on tractors used to tow refrigerated semitrailers. The operators should have familiarization training in subsistence operations.
- (2) Refrigeration specialists to operate refrigeration units on semitrailers and perform all required organizational maintenance on refrigeration equipment.
- (3) Technicians to direct loading and unloading operations, under the supervision of the assistant section chiefs.

10. Storage Platoons

The storage platoons (fig. 4) are the elements that operate the facilities of the depot. Each platoon consists of a platoon headquarters, a receiving and shipping section, class I section, class II and IV section, and a parts section.

a. *Platoon Headquarters.* The platoon headquarters are the command elements for the storage platoons. Each is commanded by a *platoon leader* who is assisted by a *storage officer*, *platoon sergeant*, and the *warehouse space supervisor*. The warehouse space supervisors also serve as labor control supervisors. A *reports clerk* is provided to maintain required records, submit operational reports, and drive the light truck assigned to the headquarters.

b. *Receiving and Shipping Section.* A *section chief* directs the activities of each receiving and shipping section and supervises all attached or assigned person-



nel. The *senior receiving and shipping specialists* supervise activities of the other assigned receiving and shipping technicians and clerks. The *clerk typists* perform general clerical duties incident to receipt and shipment of supplies.

c. *Class I Sections.* The class I sections provide personnel for the storage and issue of class I supplies.

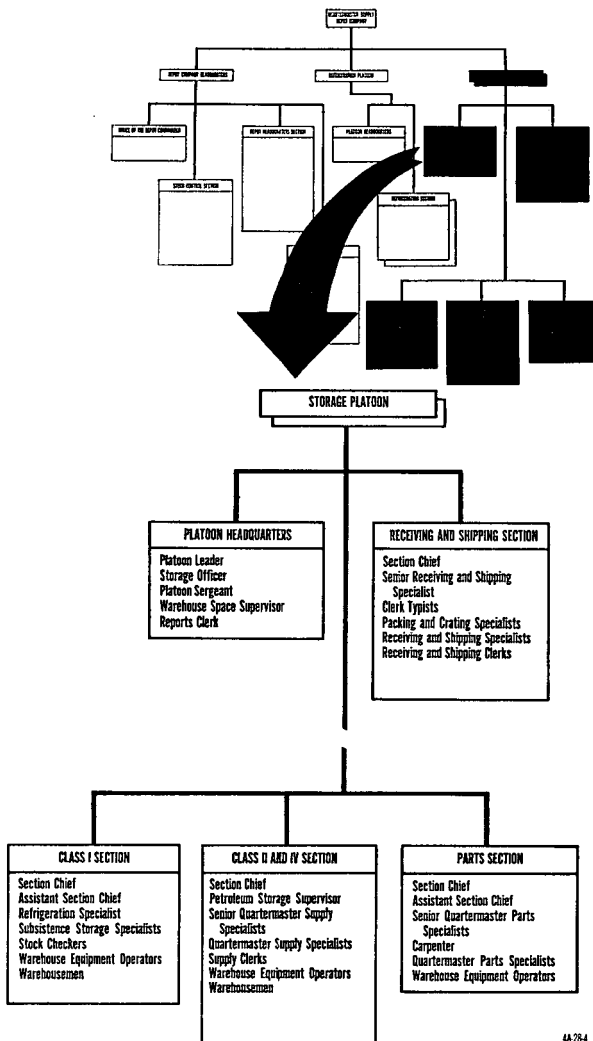
- (1) Each is controlled by a *section chief* who directs the activities of his section and supervises all attached or assigned personnel. He also plans work assignments and determines requirements for storage space and labor personnel.
- (2) The *subsistence storage supervisor* in each section directs the storage and warehousing activities of the section and acts as section chief on a second shift when required. He is assisted by the *subsistence storage specialists*, and *stock checkers*. Assisted by the *warehouse equipment operators* and *warehousemen*, he coordinates the loading and unloading of supplies. A *refrigeration specialist* is provided in each section to install, repair, and operate the organic refrigeration equipment. He also supervises erection of the prefabricated warehouse refrigerators.

d. *Class II and IV Sections.* The class II and IV sections provide personnel for the storage and issue of quartermaster class II and IV supplies and non-slated packaged petroleum products. Each *section chief* directs activities of his section and supervises all assigned or attached personnel.

- (1) The *petroleum storage supervisors* direct the handling and storage of non-slatted packaged petroleum products (par. 27).
- (2) The *senior quartermaster supply specialists* and the *quartermaster supply specialists* establish and maintain stock locator cards, store items, select items from stock to fill requisitions, perform required inventories and inspections, and perform required in-storage maintenance.
- (3) The *warehousemen* and the *warehouse equipment operators* assist the supply specialists, operate the materials handling equipment, and perform the physical handling required for the receipt, storage, and issue of class II and IV supplies and non-slatted packaged petroleum products.

e. Parts Sections. The parts sections provide personnel for the storage and issue of repair parts and maintenance operating supplies.

- (1) Each *section chief* directs the activities of his section and supervises all assigned or attached personnel. He is assisted by a *quartermaster parts supervisor* who acts as section chief on a second shift.
- (2) The *senior quartermaster parts specialists* and the *quartermaster parts specialists* establish and maintain stock locator cards, store items, select items from stock to fill requisitions, perform required inventories and inspections and perform required in-storage maintenance. The *warehouse equipment*



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Figure 4. Storage platoon.

operators assist the quartermaster parts specialists and operate the materials handling equipment organic to the section. The *carpenter* in each section constructs pallets, crates, and bins and paints parts as required for preservation.

Section III. EQUIPMENT

11. General

a. TOE 10-467 is the general authority for issue of individual and organizational equipment to the company. It also contains an itemized list of the minimum essential quantities and the types of organizational equipment necessary to accomplish the mission of the company. Supply personnel will maintain authorized allowances by requisitions upon designated supply organizations.

b. Unless otherwise indicated, items of equipment listed in the table are the latest adopted articles. Priorities of issue and/or issue of substitute items are established by current supply directives. Clothing, equipment, components of sets and kits, repair parts, tools, and expendable items are authorized in accordance with applicable tables of allowances, technical manuals, supply manuals, and other authorization documents listed in appendix I. Additional equipment not covered by pertinent authorization media must be obtained in accordance with AR 725-5.

12. Vehicles

The company is authorized sufficient trucks and trailers for company administration, liaison, and such

operational requirements as pickup and intradepot movement of supplies. A wrecker is organic to the maintenance section of the depot company headquarters. Transportation for company movement must be made available from command transportation facilities.

13. Materials Handling Equipment

The company is authorized sufficient rough terrain forklift trucks, warehouse tractors and trailers, hand platform trucks, and gravity roller conveyors to facilitate the handling and warehousing of supplies.

14. Refrigeration Equipment

The class I sections of the storage platoons are authorized 4,000-cubic foot prefabricated refrigerated warehouses. Four gasoline engine-driven refrigeration units are authorized with each prefabricated refrigerated warehouse. The refrigeration sections of the refrigeration platoon are authorized 5-ton truck-tractors and 7½-ton refrigerator semitrailers for distribution of perishable subsistence.

15. Communications Equipment

The company is authorized sufficient equipment for necessary internal and external communications. Internal communications are provided by field telephones located in the various operating elements. Wire and radio equipment is authorized for external communications.

16. Maintenance

a. The depot commander is responsible for the dissemination of instructions for preventive and organiza-

tional maintenance services within the company. He must make certain that such instructions and procedures are complied with and that authorized maintenance materials are available at all times. Each platoon leader, section chief, and supervisor must make certain that personnel under their jurisdiction are trained in proper preventive maintenance procedures. He must make certain that prescribed maintenance procedures are being followed.

b. Detailed instructions for organizational maintenance of organic equipment are contained in the appropriate Department of the Army Technical Manuals listed in appendix I. Also listed are Army Regulations covering preparation and maintenance of organizational equipment files, registration and historical service records, vehicle and equipment operational records, preventive maintenance rosters, and unsatisfactory equipment reports.

c. The company responsibility for the maintenance of stockage items is limited to storage maintenance, as defined in AR 320-5.

CHAPTER 3

OPERATIONS

Section I. METHOD AND PREPARATION

17. Method of Operation

Exact operating procedures will vary according to depot mission and specific operating conditions. They will also be affected by the availability of automatic and electronic data processing and transmitting equipment and by the structure of the command to which the company is assigned.

a. Levels of supply to be maintained will normally be prescribed by higher headquarters. These include both the operating and reserve levels of quartermaster supplies for supported forces. As a rule of thumb, 15 days are maintained in the advance section. The remainder of the theater reserves is maintained in the base section.

b. The company normally operates in one location and on the basis of two 10-hour (productive) shifts per day. This may be accomplished by operating one storage platoon and selected personnel from other elements of the company on one shift and the remainder of the unit on the other. Each storage platoon can operate separate storage locations when geography or the situation dictates.

c. Organizational structure and policies of the controlling command form the framework within which

the depot commander must direct company operations. In all cases, technical supervision will be provided by the command quartermaster through such agencies and headquarters as may be established. Such supervision will normally be provided in the form of policy guidance, estimates, and directives.

- (1) It is envisioned that stock control and replenishment of quartermaster depot stocks will be functions of the command quartermaster. Receipt, storage, in-storage maintenance, and inventory control of quartermaster supplies at the depot will be accomplished as normal functions of the depot commander.
- (2) Battalion headquarters will transmit operating instructions regarding the receipt and shipment of supplies to the company by the most direct means available. Other designated command headquarters will be kept advised by means of status reports, information copies, and/or monitored transmissions of operating instructions, and periodic liaison visits.
- (3) Unit distribution will normally be used for all supplies. Transportation required to effect distribution must be provided from transportation sources available to the command.

18. Site Selection and Occupation

The general operating area for the company is normally assigned by the controlling headquarters to conform with the overall operational plan of the command. Within this general area, the depot commander determines specific sites for the company. Factors influ-

encing the decision are defensibility, terrain, location of adjacent units, and general conditions existing in the area.

a. Location. More important is the mission of the company and the special requirements that characterize its operations. The type, condition, and availability of existing buildings are, for example, prime considerations. The availability of transportation facilities is another. A port or other terminal normally offers maximum opportunity for effective operations if the company is to operate in the base section. However, this must be balanced against the danger of creating a particularly lucrative target. Whenever practicable and authorized, the company may be located within the same area or complex as a Quartermaster Equipment Maintenance Company (TOE 10-349).

b. Reconnaissance. The depot commander may conduct or direct that a reconnaissance be made of the operating site. The principal objectives of the reconnaissance are to—

- (1) Survey the area both as to defensibility and as to suitability for technical operations.
- (2) Select alternate areas for use as required.
- (3) Plan a preliminary layout.
- (4) Prepare an overlay and map of the area for use by the company and submission to higher headquarters.
- (5) Prepare preliminary defensive positions.
- (6) Initiate installation of communications facilities.
- (7) Generally prepare the area for operation and occupation.

c. *Layout.* The layout of the company and its operating elements is determined by such factors as mission, size, and characteristics of operating sites. Existing buildings that may be utilized immediately or after some rehabilitation can be used to advantage. The assistance of command engineer personnel may be requested to advise on the structural soundness of buildings selected. It may be necessary to construct temporary buildings or shelters if existing ones cannot be used or rehabilitated as organic tentage provides only the minimum protective cover for supplies and personnel. Additional tentage required for outdoor storage operations must be requisitioned in accordance with established procedures.

- (1) *Depot company headquarters.* There is no established pattern for the arrangement and layout of the company headquarters, but the principal functions of the several sections suggest general arrangements.
 - (a) The stock control section might operate most effectively from a location within the depot proper and convenient to the office of the depot commander.
 - (b) The administrative, mess, and communications centers for the company would probably be best located in or very close to the company bivouac or billeting area.
 - (c) Company supply personnel and the maintenance section must support all elements of the company and will be located to do this most effectively. In some circumstances this may require a centralized company supply-service organization; in others,

these personnel may be distributed among the several operating platoons for direct and immediate support of company operations.

- (2) *Refrigeration platoon.* Sufficient space for organic refrigerated vehicles is the main consideration in the selection and arrangement of the area for the refrigeration platoon. This area must be as close as practicable to the points at which perishable supplies are to be loaded. Two or more areas may be required, depending upon characteristics of the area and considerations of dispersion and of mission accomplishment. The area or areas selected should provide sufficient turnaround space, afford natural means of concealment, and be accessible to a good road net. If a fuel dump or filling station is provided for organic vehicles, it should be located away from the main area and provision must be made for protection against fire, sabotage, and other hazards.
- (3) *Storage platoons.* Contemplated operational environments suggest that sections of the storage platoons operate at separate locations within the depot complex or specified geographical area. Mission and effective control determine the practical limits of dispersion.

19. Space Requirements

Current concepts envision varying tonnage and space requirements for depots in the communications zone. These requirements depend upon such considera-

tions as prescribed levels of supply, types of supply, dispersion, and available facilities. Some estimates of space requirements can be calculated from factors and principles presented in such publications as FM 101-10, TM 743-200, and TM 743-200-1. A chart showing tonnage requirements for an advance section depot appears as appendix II. A comparable chart for a base section depot appears as appendix III. The requirements indicated in both charts were developed on the basis of factors established for a specific situation. They are provided for guidance only.

20. Preliminary Operations

a. The depot commander normally submits a report to battalion headquarters when operating sites have been established and the company is ready to begin operations. This report contains, as a minimum, the location of depot headquarters and of the operating platoons and an estimate as to the time that the company expects to become operational.

b. The depot commander should also take steps to insure immediate contact with the headquarters or installations he has been directed to support. One of the first steps should be notification of the type of support to be provided and a general outline of procedures. This step may be followed by distribution of the schedule of supply under which the company proposes to operate. All this information may be published in an administrative order by depot, battalion or higher headquarters.

Section II. DEPOT OPERATIONS

21. Receiving

The receiving activities of the company embrace those operations by which supplies are brought into the depot. The details of the operations depend upon the types of supplies handled, the distance supplies must move, the type and amount of materials handling equipment available, and the physical characteristics of the depot or storage area.

a. Principles. The following principles, discussed in detail in TM 743-200 and TM 743-200-1, are universally applicable wherever supplies are received for storage and subsequent issue, shipment, or distribution.

- (1) Receiving operations must be planned. Such planning may begin with the receipt of notification that supplies are scheduled to arrive at a specified time. Certain plans must be available for laborers to follow in unloading the supplies. Materials handling equipment operators must have a planned route of travel from the carrier to storage location.
 - (a) Planning must include establishment of overall priorities based on workload, initiation of action to make certain that labor and materials handling equipment are available, and assignment of available vacant space for incoming supplies.
 - (b) At the storage platoon, appropriate supervisors and specialists must plan for the proper receipt and location of the carrier, estimate labor and equipment require-

ments, and select exact locations for storage of incoming supplies.

- (2) Receiving operations must be coordinated with other storage activities. The location of the carrier and transfer of personnel and equipment temporarily assigned to receiving and unloading should be so effected as to prevent or minimize interference with other operations.
- (3) The unloading operation must be supervised on the spot. The type of carrier, weight and size of supplies, the type of unloading equipment available, and the distance to the storage location all cause variance in the methods of unloading. The mechanics, however, are generally the same, and immediate supervision is necessary, if only from the standpoint of safety.
- (4) The movement of supplies to storage must be regarded as a continuation of the unloading operation. Necessary repacking, repackaging, or remarking operations should, whenever possible, be integrated with unloading to reduce additional handlings and use of space for temporary storage. Non-slatted packaged petroleum products which have been repackaged either at time of unloading or after containers have been in storage will not be issued until repackaged products have been tested by a TOE QM Petroleum Products Laboratory.

- (5) The receiving operation must include provisions for the inspection and checking of supplies. Incoming material should be tallied concurrently with unloading. A preliminary visual inspection should be made of containers to determine damage, if any, during transit. Complete or spot check inspections may be made if necessary or if directed by policies of higher authority.

b. Mechanics. The mechanics by which supplies are received may be divided into three operations—physical unloading of supplies from the carrier; inspection, checking, and documentation of the incoming supplies; and post-unloading activities. Most supplies received by the company will be unloaded by means of forklift trucks, warehouse tractors and trailers, manual labor, conveyors, or hand trucks, or by means of any suitable combination thereof. Exact procedures applicable to the several types of carriers, are set forth in TM 743-200 and 743-200-1.

- (1) Regardless of location or method of employment, storage personnel will normally—
 - (a) Supervise the unloading and movement of supplies to storage.
 - (b) Verify incoming supplies against receiving documents as to nomenclature and quantity.
 - (c) Supervise the storage of incoming supplies in the designated areas.
 - (d) Prepare stock locator cards as required.
- (2) Post-unloading activities will normally encompass the police or cleanup of the unloading area; removal of such unloading devices

as car plates or ramps; and the release of the carrier.

22. Storage

Supplies should be arranged within each installation so that they can be readily checked and quickly located for removal and shipment. Standards, procedures, and techniques applicable in all storage situations and under all storage conditions are described in TM 743-200 and TM 743-200-1. Uniform compliance with these standards and methods is essential within the company.

a. Facilities. Maximum use should be made of warehouses, sheds, and other existing facilities for supplies that require covered storage. Because it is extremely important to avoid creating inviting and lucrative targets the company must be prepared to establish open storage areas and to make use of natural facilities that can be developed into underground storage areas. These characteristics in no way detract, however, from the requirement that supplies be effectively stored and properly safeguarded. To the contrary, the storage of supplies in dispersed areas increases the need for maintaining accurate and workable locator systems.

b. Principles. The following principles must be considered whether supplies are stored in the open, in sheds, or in warehouses.

- (1) Space must be conserved by assuring efficient use of all storage facilities.
- (2) Labor must be conserved by providing proper supervision and training, by promoting familiarity with handling methods, and by in-

sisting upon efficient use of available materials handling equipment.

- (3) Time must be conserved by allowing only minimum handling of supplies, by assuring proper allocation of space, and by using a planned storage layout. Hauling distances from unloading points to storage locations must be kept as short as practicable. Re-handlings must be avoided. A single move should put supplies where they belong, to remain there until they are shipped out. The storage area must be arranged to provide a straight-line flow of supplies between storage point and carrier.
- (4) Popularity or turnover of supplies must be regarded as the primary factor determining the storage location for supplies. Active, fast-moving supplies must be stored close to shipping or issue areas so that trips between the storage area or stacks and the issue point will be as short as possible.

c. Methods.

- (1) *General.* The block system of storage should be used whenever possible. Stacks may be either pyramidal or rectangular. In huts or similar structures they should be as high as the nature of the supplies and the available space permits. In open storage areas stack heights will be controlled by the supporting qualities of the surfacing, the capacity of available materials handling equipment, and the characteristics of the commodities. De-

tailed procedures for block storage are contained in TM 743-200.

- (a) Supplies should be kept off the ground by means of dunnage made of lumber, logs, railroad ties, and other suitable material. Dunnage laid out before the arrival of supplies can expedite receipt, handling, and storage. The type of storage area will determine to a large extent, the dunnage required. On well-drained paved areas dunnage should provide a minimum clearance of 4 inches between the stack and the ground. A clearance of at least 8 inches is needed on well-drained gravel areas. A minimum of 10 inches may be needed on unimproved and poorly drained areas.
- (b) When used, paulins should be securely held down. Ropes may be tied to cases in the stacks or to pins driven into the ground. Paulins may also be used effectively in the construction of sheds by stretching them over wooden frames.
- (c) Pallets should be used to the maximum extent. Care must be taken, however, to assure that unnecessary time and manpower are not expended in palletizing supplies which are packed in containers designed for transfer and storage without pallets.
 - 1. Containers or items are arranged on a pallet in accordance with set patterns. Detailed descriptive materials depicting

various pallet patterns, standard pallet sizes, and methods of palletization is contained in TM 743-200. Once pallet patterns and commodity arrangements have been adopted within the company, they should remain constant in all like circumstances. Pallets should be carefully stored when not in use and must not be used as dunnage.

2. In the movement and storage of supplies, the largest size load which can be handled with available equipment and facilities is most economical in respect to both manpower and time. The greater the number of items handled each time, the less the number of handlings required. Therefore, unit loading, which is the combination of numerous small items into a single load, should be the normal technique. Items which can be palletized should be formed into unit loads as soon as received and be retained as units throughout the storage operation. Practical limits to the application of this principle include the physical characteristics of the items and of the storage area, the size of the pallet, and the capacities of available materials handling equipment.
- (2) *Class I.* Class I supplies should be so stored that they are protected against the elements, vermin, sabotage, and enemy observation. Stacks should be as uniform in size and type

as possible. Stacks of subsistence stored in the open must be built to provide for proper run off of rain water. This can be done by using an A-frame or by reducing the width of upper courses by a row of units on each side of the stack until a layer of one row is reached at the apex.

(a) *Nonperishable subsistence.* Nonperishable subsistence supplies are food items that are canned, dried, dehydrated, or otherwise processed so as to require no refrigeration under normal storage conditions. Even though nonperishable items are not as susceptible to spoilage as fresh or frozen foods, spoilage can result if they are mishandled or improperly stored. Such supplies must, therefore, be stored according to the amount of protection required for each particular item. Detailed guidance is contained in TM 743-200. Procedures that are universally applicable appear below:

1. Supplies should be protected from extremely high or extremely low temperatures.
2. Stacks should not be built to such heights that containers on bottom layers are crushed or otherwise damaged.
3. Items packed in glass containers with metal tops or cork stoppers should be inverted to prevent gaskets or corks from drying out and resulting in leakage. Certain items, such as canned milk, must be turned periodically.

4. All items should be properly cross-stacked, when necessary, to keep stacks solid and secure.
- (b) *Perishable subsistence.* Perishable subsistence supplies are fresh and frozen food items that require refrigerated storage. Detailed procedures for the storage of perishable items are described in AR 30-20.
1. Prefabricated refrigerated warehouses organic to the company contain rooms that can be maintained at different temperatures for different items. The temperatures to be maintained are prescribed by Army Regulations. The room containing fresh foods and vegetables, for example, should be maintained at a temperature of 32° F.; the room for eggs and dairy products between 30° F. and 32° F.; and the rooms for frozen items at 0° F. or below. A ventilator room for certain specified items may be maintained at approximately 38° F.
 2. The required temperatures and a list of items stored in each room should be posted conspicuously on the outside of the warehouse. Room temperatures should be checked and recorded three times a day. More frequent checks will be required if the company operates on a shift basis.
 3. Refrigerated warehouses and surrounding areas should be kept clean at all

times. NO SMOKING signs should be posted conspicuously in all rooms and compartments, and the rule rigidly enforced.

- (3) *Class II and IV.* Standards, procedures, principles, and techniques discussed above are generally applicable to storage of the quartermaster class II and IV supplies. Additional information on the storage of these commodities is contained in FM 10-64.
- (4) *Class III supplies.* The type of product, packaging, and facilities available determine whether non-slatted petroleum products should be stored inside or outside. Lubricating oils and greases should be stored indoors whenever possible. They are normally provided in drums, cans, and pails. The types and quantities of available handling equipment determine location and arrangement of the storage area as well as the height to which containers may be stacked. Specific instructions for selecting and planning the petroleum storage area are contained in TM 10-1101 which also provides specific and technical instructions for developing the outdoor storage area, for stacking packaged oils and greases both indoors and outdoors, and descriptions of safety precautions to be followed in the handling of petroleum products.

23. Shipping Operations

Shipping activities embrace those operations by which supplies are taken out of the depot. Exact pro-

cedures depend upon the type of supply, the physical characteristics of the storage areas, the distance supplies must be moved, and the type and quantity of materials handling equipment available. Normally, the procedure follows a fixed routine which includes scheduling the operation, selecting supplies to be shipped, loading supplies, and documenting the shipment.

a. Planning. Shipping operations are, in practice, receiving operations in reverse. They must, consequently, be thoroughly and carefully planned. Such planning begins when supplies are received, as they must be stored and located in a manner that will expedite shipment. The basic consideration in all shipment planning is that a definite time sequence must be developed to control the operation. Other considerations include—

- (1) Total quantity to be shipped.
- (2) Total weight and/or cubage to be shipped.
- (3) Special preparations such as packing or re-packing and marking or remarking.
- (4) Availability of personnel and equipment.
- (5) Method of transportation.

b. Shipping Procedures. Exact shipping procedures must be developed on the basis of conditions and directives under which the company must operate. Mechanics of the shipping operations are contained in TM 743-200-1. Although neither mandatory nor all-inclusive, the mechanics described therein are designed to achieve maximum uniformity under all conditions.

In consonance with these procedures, company personnel engaged in shipping operations will normally—

- (1) Check requisitions to determine items and quantities required.
- (2) Prepare necessary documents.
- (3) Select items required to fill the requisition, and supervise packing procedures.
- (4) Pack and crate supplies as required.
- (5) Arrange for transportation, and supervise the loading of supplies.

c. Loading. Loading is that part of the shipping operation by which supplies are loaded into the carrier, stowed in the prescribed manner, and blocked or braced in such a way as to insure arrival at destination in good condition. Planning, coordination, and supervision are necessary to insure that this phase of the operation is completed quickly and effectively. The details of the loading operation will depend primarily upon the type of materials handling equipment available and upon the type of carrier in which the supplies are to be transported. Certain factors are universally applicable. Principal among these are—

- (1) The carrier should be loaded to practical capacity for the items carried.
- (2) The carrier should be carefully inspected and, if necessary, cleaned before loading begins.
- (3) Movement from the storage area to the carrier should be accomplished by the quickest or shortest route.
- (4) The proper type of materials handling equipment should be selected, and it should be employed in the proper manner.

Section III. SUPPLY OPERATIONS

24. General

General procedures for the supply of class I, class II and IV, and packaged class III supplies are contained in pertinent Department of the Army publications listed in appendix I. Modification of these procedures may be required to fit the needs of the company in specific instances. The procedures suggested below provide guidance only and must be adapted to specific situations.

25. Class I Supply

The class I section will issue subsistence in response to requirements submitted by supply points, through prescribed channels, indicating only the type of rations desired, *e.g.*, A, B, individual combat, or small detachment.

a. Requirements. Current concepts envision two systems by which requirements may be submitted. The first is applicable when electronic transmission and automatic data processing is impracticable. The second makes maximum use of electronic transmission and automatic data processing facilities.

- (1) In the first system, supply points transmit requirements directly to the depot. These requirements may be transmitted in the form of a daily ration request, if directed, or by telephone, TWX, courier, or other means of communication. If the ration request is required as an instrument, or to substantiate requirements placed verbally, higher headquarters will normally prescribe the form to be used.

This may be the Ration Request for Theaters of Operations, DA Form 2058-R or a locally designed and reproduced form.

- (a) At intervals specified by depot or higher headquarters (2, 3, or 5 days, for example), supply point units submit a status report of quantities on hand. A form may be designed for this purpose or a Status Report (DA Form 2060-R) may be used.
- (b) The depot uses the status report as a basis for computing supply point requirements for total quantities of each component to be supplied to supported units during the ensuing period. Other factors in the computation are anticipated troop strengths, the tactical situation, past issue experience, and menus.
- (c) The depot initiates replenishment action to maintain supplies at prescribed levels by submitting to designated headquarters requirements and a status report of quantities on hand.
 - 1. Higher headquarters will normally prescribe the frequency for the submission of these status reports to coincide with the submission of status reports to the depot. Quantities on hand are listed by *component* for the A and B ration and by *type* of combat ration.
 - 2. The company conducts a physical inventory prior to the submission of the status report to insure accurate reflection of

stocks on hand. Stock record cards and locator files, if maintained, are brought up to date at this time. The report is submitted through channels designated by higher headquarters.

- (2) Under the second system, supply points submit requirements to a designated administrative support agency or automatic data processing center, which computes total quantities of each component for issue to the requesting organization and transmits shipping instructions to the depot. The center transmits stock status reports to the command quartermaster daily or as specified. The command quartermaster combines these stock status reports with other information to control proper use of substitute items and to check operations for compliance with prescribed issue priorities.

b. Issue.

- (1) When items are received at the depot in accordance with the system outlined in *a*(1) above, depot personnel check types, quantities, and condition of supplies and tally them in on a shipping document. To make issues, depot personnel check records of quantities on hand; prepare the shipment; make substitutions, when necessary; and prepare a shipping document. The shipping document is annotated, if necessary, to show substitutions and other actions taken to equalize issue, and a copy is retained as a tally out. Adjustments are made to cover changes in troop strengths, reserve supplies, anticipated

emergencies, excesses, and other contingencies.

- (2) The depot follows essentially the same procedure for receiving and issuing items received in accordance with the system described in *a*(2) above. The principal differences are that the administrative support agency computes total class I requirements, indicates substitutions, and takes action to replenish depot stocks. The depot performs essentially a warehousing function.

c. Distribution. Except for the distribution of perishable subsistence, for which the company is organically provided with refrigerated semitrailers, transportation required for the distribution of class I supplies must be obtained from nonorganic transportation sources. The amount of perishable subsistence that organic refrigerated semitrailers can transport depends upon the item, the distance supplies must be moved, the number of semitrailers available, and the allowance factor per man per day. It is anticipated, in this connection, that—

- (1) The ration will include approximately $\frac{3}{4}$ pound of perishable subsistence per day.
- (2) Approximately 75 percent of the organic refrigerated semitrailers will be operative at all times.
- (3) Each semitrailer can transport approximately 3 tons of perishable foods.
- (4) The one-way distance from the depot to the supply point can be covered in 10 hours.

26. Class II and IV Supply

Issue and distribution of class II and IV supplies are subject to controls necessitated by the characteristics of these classes of supply and by the principles of supply economy. Stockage must be controlled to provide maximum service with minimum stocks. Issues must be controlled to insure distribution to proper units and organizations in accordance with established allocations and priorities.

a. Selective Stockage. Selective stockage is a process by which authorized stockage lists are developed on the basis of actual demand experience. Such lists, resulting from continual review and analysis of demand data, are modifications by commanders of allocations prescribed by TOEs and TAs to meet specific tactical or logistical situations.

b. Issue Control. Principal means of issue control are lists of regulated items and lists of command-controlled items.

- (1) Lists of regulated items are published by the Department of the Army to control and supervise the issue and distribution of items in short supply and those that are costly or of a highly technical or hazardous nature. Requests for items appearing on a list of regulated items must be processed through command channels, and items may be deleted from such lists by the Department of the Army only.
- (2) Lists of command-controlled items are published by commanders at all echelons to control and supervise issue and distribution of

locally critical items. Requests for items appearing on lists of command-controlled items must be processed through command channels, and items may be deleted from such lists only by the command which published the list.

c. Supply Control. Specific supply control procedures are prescribed by higher headquarters. Basic accounting records include—

- (1) Copies of documents covering delivery of supplies from depots.
- (2) Copies of unit Requests for Issue and Turn-In (DA Form 1546) for supplies issued to units.
- (3) Copies of unit DA Form 1546 held in a suspense file pending receipt of the requested item from depots.
- (4) Pertinent authorization and directives controlling the request and distribution of supplies, issue schedules, and related information.

d. Requisitioning Procedures. The system for requisitioning quartermaster class II and IV supplies will be established by standing operating procedures or administrative orders. It will be adapted to requirements arising from the deployment of units and the nature of the tactical operations. The processing of requisitions at all echelons is as expedient as the situation and the availability of resources will permit, commensurate with essential supply control.

- (1) Quartermaster class II and IV supplies are items of supplies and equipment issued to individuals or organizations. The term class II is used to designate items issued on the

basis of allowances prescribed by tables of organization and equipment, tables of allowances, equipment modification lists, or other appropriate authorization documents. The term class IV is used to designate items for which prescribed allowances have not been established and which must be procured and issued by command authorization. However, except for the requisitioning procedure, there is no practical difference between quartermaster class II supply operations and quartermaster class IV supply operations.

- (a) Within these classifications fall individual and organizational clothing; equipment—such as cartridge belts, canteens, combat packs, and blankets—normally issued to individuals; light mechanical equipment—such as immersion heaters, field ranges, typewriters and tent stoves—normally issued to organizations; and heavy mechanical equipment — such as forklift trucks, mobile bakery units, mobile laundry equipment, and textile or equipment repair trailers. These are normally class II supplies, but may become class IV when required in amounts exceeding authorized allowances.
- (b) Also included in the class II and IV category are items equivalent to Army Exchange supplies, handled by quartermaster installations when Army and Air Force Exchange service facilities are not available; ecclesiastical supplies for chaplains;

special services supplies; and supplies for such special organizations as the American Red Cross. Such items are normally regarded as class IV supplies.

- (2) Requisitions for quartermaster class II supplies are normally submitted by supported units daily or as scheduled, Upon receipt, the stock control section—
 - (a) Edits the requisition for stock number, item description, and authority.
 - (b) Makes necessary corrections by immediate and informal communication with the unit concerned.
 - (c) Forwards requisitions to the appropriate supply platoon for issue.
 - (d) Sets up a back-order system if certain items cannot be provided immediately. The requisition is placed in a suspense file, and the requesting unit or organization is advised of the due-out and notified that the supplies will be issued when available. Upon receipt of the supplies, the stock control section directs delivery or issue to the unit or organization.
- (3) A formal requisition is not used for requisitioning class II supplies when the direct exchange of unserviceable items for like serviceable items is possible. Direct exchange is the preferred method of resupply of mechanical equipment, since this allows unserviceable equipment to be available promptly for repair or recovery of essential parts.

- (4) When it receives requisitions for class IV supplies, the stock control section evaluates them and, as appropriate, assembles them for forwarding to the appropriate command quartermaster for approval. As in the case of quartermaster class II supplies, a back-order system is set up for class IV supplies not immediately available.
- (5) As the issue of regulated and command-controlled items is governed by allocations and priorities, requisitions for them must be forwarded through command channels.

e. Distribution. Although the unit distribution method will be normal, it may sometimes be more practicable to employ the supply point method or a combination of the two.

27. Class III Supply

Petroleum supply in the theater of operations is based upon the concept of distribution of bulk products as far forward as practicable. To this end provision is currently made for the establishment of headquarters to control and administer distribution of petroleum on an intersectional basis throughout the communications zone. Information on the organization and operation of these headquarters is contained in appropriate Department of the Army publications listed in appendix I. This same concept makes different provisions for the distribution of non-slated petroleum products which, under current procedures, are distributed through the regular depot system of the theater. Specific procedures to be followed by the company in accomplishing its class III supply mission will nor-

mally be the same as for class II and IV supplies but which may be modified by higher headquarters.

28. Repair Parts Supply

Procedures for the supply of quartermaster repair parts and maintenance operating supplies must be developed on the basis of assigned mission, actual operating conditions, and policies and directives of higher headquarters.

a. The system developed by the company must follow, to the maximum extent practicable, basic policies and procedures set forth in pertinent Department of the Army publications.

- (1) The Request for Issue and Turn-In (DA Form 1546) must, for example, be used by supported units to requisition repair parts. The manner in which the company may be required to employ the form will normally be prescribed by higher headquarters.
- (2) The principle of selective stockage must be followed in developing authorized stockage lists. Quantities to be stocked must be based upon authorized allowances prescribed by Department of the Army technical manuals or supply manuals and upon the mission of supported quartermaster units.
- (3) Policy guidance and directives from higher headquarters will normally specify whether or not the company will exercise full stock control over supply and replenishment of quartermaster repair parts. In any event, the company must maintain certain records, reports, and forms. Current concepts contem-

plate maximum use of automatic data processing equipment for such purposes and, in the case of repair parts, suggested procedures indicate coordination with quartermaster stock record support agencies or administrative support operations centers.

b. The repair parts mission assigned to the company will depend upon the scope of the operation, the structure of the command to which the company may be assigned, and the structure and composition of supported forces. These factors also influence employment of the parts section.

- (1) Supported units may submit requisitions for the replenishment of repair parts on a scheduled basis or when established reorder points are reached. They may submit requisitions for initial supply of repair parts when necessary.
- (2) The company may, depending upon method of employment, make repair parts available, arrange for repair parts to be shipped directly from a designated source of supply to requesting units, or make emergency over-the-counter issues. Necessary transportation must be made available from command sources if the parts section is assigned a distribution mission.

Section IV. LABOR

29. General

Labor requirements depend primarily upon the assigned mission, tonnage to be handled or work to be

performed, time available, and capacity of labor personnel. Other factors are the amount of labor supervision available or required, number of shifts, and general working conditions.

a. Labor for depot supply operations is obtained from three principal sources: Service troops, civilians, and prisoners of war. Maximum use is made of civilians and prisoners of war to release as many military personnel as possible for combat duties.

b. The following guide may be used to estimate labor requirements:

$$\frac{\text{Tonnage To Be Handled} \times \text{Number of Handlings}}{\text{Time Limit (Hours)} \times \text{Capacity/Co-Plat-Sec (Tons/Hour)}} = \begin{array}{l} \text{Quarter-} \\ \text{master} \\ \text{Service} \\ \text{Companies,} \\ \text{Platoons,} \\ \text{or Sections} \\ \text{Required.} \end{array}$$

$$\frac{\text{Tonnage To Be Handled} \times \text{Number of Handlings}}{\text{Time Limit (Hours)} \times .5 \text{ Tons/Man/Hour}} = \begin{array}{l} \text{Laborers} \\ \text{Required.} \end{array}$$

30. Service Troops

The Quartermaster Service Company (TOE 10-449) is the principal military unit used to perform labor for the depot company where security and strict military control are required. This company may provide work details either on a permanent basis or on a day-to-day basis.

31. Civilians

Local allied, neutral, or cobelligerent civilians in friendly or occupied countries may be employed on a voluntary basis subject to agreements made with their

governments. Enemy nationals in occupied countries may be requisitioned in accordance with the Geneva Convention or, under exceptional circumstances, employed on a voluntary basis.

32. Prisoners of War

Prisoners of war may be used only within the provisions and limitations of the Law of Land Warfare (FM 27-10).

33. Types of Duty

Military labor personnel in support of company operations may be used to—

- a.* Load and unload trucks, railroad cars, and other vehicles.
- b.* Sort, stack, and warehouse supplies.
- c.* Assist in the operation of materials handling equipment.
- d.* Check supplies.
- e.* Construct pallets.
- f.* Pack, mark, and crate supplies and equipment.
- g.* Assist in the movement and setting up of equipment or facilities.
- h.* Erect directional signs or markers.
- i.* Pitch and strike tents.
- j.* Police the area and perform other related duties.
- k.* Assist in the issuing of supplies.
- l.* Dig fire trenches.
- m.* Assist in the construction of hasty roadways.

34. Control

Although there are not required forms for use in the control of service troops, a simple system should be improvised to keep all interested headquarters informed of the status of the troops. The following principles should be incorporated, as applicable, into whatever system is developed:

a. All requests for labor should be submitted to the highest headquarters concerned.

b. Permanent work details should be provided automatically each day before temporary details are assigned.

c. Except in emergencies, requests for new details or changes in strength of permanent details should be received by the highest headquarters concerned not later than a designated time on the day preceding that for which troops are desired.

d. Requests for emergency details submitted after the designated time should be acted upon by the highest headquarters concerned.

e. At each point where work details are required, an officer should be authorized to receive the detail and to release it when the work is completed.

f. The highest headquarters concerned must arrange for transportation as required. The headquarters must also determine whether the work details are to report directly to their work locations or to clear through an assembly point.

g. Complaints regarding the work details should be submitted to the headquarters to which the request was submitted.

h. Requests for service troops should be carefully screened and held to the minimum consistent with efficient operation.

i. When work details report for duty, they should be assigned the work at hand as soon as practicable. Company officers should check the details while at work to assure that all men are being used efficiently. If a work detail appears to be too large, liaison with the using activity may effect a reduction in size of the detail and make some of the men available for other assignments.

CHAPTER 4

ADMINISTRATION

Section I. TRAINING

35. General

The ultimate objective of training in the quartermaster supply depot company is to develop operating techniques that will enable it to function as an efficient, integrated organization in the field. This objective requires thorough and continuous training based upon fundamental doctrine and principles presented in FM 21-5. Training is accomplished in a definite cycle. It begins with individual tactical and technical training. It progresses to section, platoon, and company training which emphasizes teamwork and coordinated action among functional elements.

a. Responsibility. The company training program is directed toward a specific training objective normally determined by higher headquarters. The depot commander is responsible for supervising and directing training toward that objective. His principal assistant is the section leader of the depot headquarters section, to whom he may delegate development of the general training program for the unit. This may involve the preparation of training directives and policies and the consolidation and publication of battalion training schedules. Training within the company must be carefully planned and closely supervised. In the interest

of attaining highest proficiency possible, training facilities available to the unit must be exploited to the maximum. Individuals must be trained in their military occupational specialties by means of a carefully developed and well-coordinated program involving unit school, service school, and on-the-job training. Unit training must emphasize dispersed and independent operations under nuclear conditions. Team and section training should receive a high priority. Training should be so designed that platoons and sections operate under their own leaders.

b. Guidance.

- (1) Suggested methods and procedures for training quartermaster specialists and technicians are included in ATP 10-110. Suggested methods, procedures, and schedules for unit training are contained in appropriate Army Subject Schedules and in ATP 10-467. While these publications serve to standardize training throughout quartermaster units, they may be modified to fit specific training requirements or objectives. Arbitrary boundaries between phases should be avoided to provide for realistic and effective training.
- (2) TOE 10-467 designates cadre positions which must be filled by personnel trained and qualified to perform essential duties in the formation, administration, and training of similar units. In order that transfer of the cadre will not deny sufficient experienced personnel to the parent organization or the newly formed unit, alternate personnel should be qualified and trained for each cadre position as quickly

as practicable. This requires, in most instances, training of company personnel in both their primary and secondary military occupational specialties.

c. Tests. Army Training Test 10-467 and field exercises are conducted as a part of the normal training program to evaluate the proficiency of the unit. Under current training concepts cognizance must also be given to mobility test exercises. These exercises are conducted by higher headquarters to observe and evaluate actions by organizations and units in the implementation of readiness plans.

36. Training Operations

Training operations depend primarily upon local facilities and a number of other variables, including training status of the unit; status of equipment, and time available for training. These facts should be recognized, and battalion and unit training programs should be developed with priorities assigned to those elements considered essential to unit proficiency.

Section II. SAFETY

37. General

Because injuries and accidents can seriously hamper company operations, an effective safety program is essential. This program must encompass all phases of operations. Personnel must be thoroughly indoctrinated in the proper handling of materiel, the safety procedures to be exercised when using tools and machinery, and the precautions necessary when handling or storing hazardous materials. In addition, per-

sonnel must be impressed with the importance of constant vigilance to detect potential hazards, encouraged to take remedial action to reduce or eliminate the danger, and required to report promptly all accidents or safety hazards.

38. Safety Organization

A safety organization must be established under a safety officer. The safety officer will be responsible for enforcing safety techniques to prevent injuries, loss of efficiency, and damage to materiel or facilities. Personnel must become familiar with the tools and equipment they use and with the techniques of performing specific operations. This information may be obtained from appropriate training manuals or training bulletins. The importance of safety should be stressed throughout training. In the event of nuclear attack, many of the items with which service company personnel may come in contact will be potentially hazardous. The precautions to be used depend upon the hazard involved. The presence of these hazards constitutes a threat to all personnel in the immediate area, and individuals should be made thoroughly familiar with all safety procedures relative to such materiel.

Section III. COMMUNICATIONS

39. General

Current concepts of warfare dictate that service support units be mobile, flexible, and capable of operating at dispersed locations. Thus, adequate and flexible communications facilities must be available to support logistical operations. In order to operate

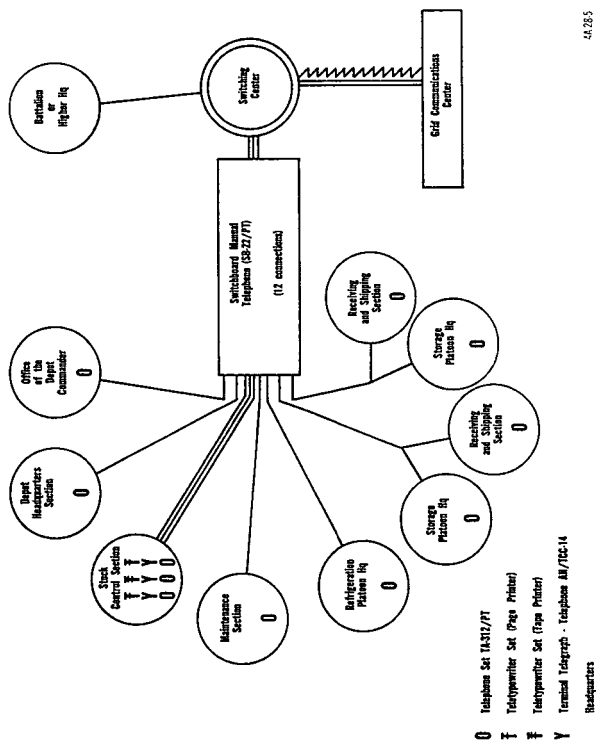


Figure 5. Wire communications net.

effectively under current concepts, the elements of the company have been provided with wire and radio communication.

a. Internal communication is provided by field telephones located in various operating elements of the company.

b. The primary means of external communication is by wire, *i.e.*, telephone and teletypewriter. Radio teletypewriter provides a secondary means of external communication.

40. Wire Communications Net

A diagram of the wire communications net appears as figure 5.

Section IV. RECORDS AND REPORTS

41. Technical

Depot company headquarters must have available a variety of data and specific information concerning operations. Much of this information is available from records and reports used in the normal routine of operations. Some must be prepared on a recurring basis. In general, the frequency with which such data must be submitted, compiled, and transmitted will be recommended by higher headquarters.

a. Records and reports should be kept to the minimum consistent with the requirements of the situation and the instructions of higher commands, but they should contain sufficient information from which to develop required statistical information on company activities. Automatic data processing and improved

means of transmission suggest a departure from manual compilation and delivery. This automation does not preclude operating elements from maintaining informal records for their own use and for historical purposes. Moreover, it remains necessary to have available the basic information for automatic data processing.

b. Accurate information is a basis for planning, control, and decision. Automatic data processing is a means of applying this information rapidly and effectively, but it is not a solution for all management problems. It is, furthermore, distinctly difficult to apply automatic data processing under certain conditions. Consequently, it is not a prerequisite for the efficient functioning of the company.

c. When applicable, current Department of the Army forms may be used for maintaining informal records; or forms may be prescribed by command headquarters or by higher authority.

42. Administrative

a. *Policy File.* The depot commander should maintain a policy file containing a summary of such decisions, experiences, or other information as he desires to serve as a guide for company personnel. The policies may be in the form of brief notes, plans, or directives; and they may include charts, tables, and other control media.

b. *Standing Operating Procedure.* A standing operating procedure (SOP) should be established to expedite operations and to set forth those instructions the commander desires to make routine. The standing

operating procedure should be changed as necessary to meet changing conditions or to modify existing practices. The amount of detail will depend primarily upon the state of training of the company, but it must be sufficiently complete to serve as a guide for new arrivals to the unit. It should not be so restrictive as to prevent exercise of judgment or initiative by subordinates. Normally, the battalion or other headquarters to which the company may be attached will provide a standing operating procedure to which the company SOP must conform.

c. Unit Journal and History. When directed by higher headquarters, the company commander will prepare or supervise the preparation of a unit journal and history. Instructions relative to the scope, preparation, and distribution of a unit history are found in AR 220-345. Information concerning the unit journal is contained in FM 101-5.

Section V. INSPECTIONS

43. General

Frequent staff visits and inspections to determine the military and technical efficiency of the company are normally made by the commander or the members of the command headquarters to which the company is attached.

44. Types

a. Command Maintenance. Command maintenance inspections (AR 750-8) are made to—

- (1) Insure the adequacy and efficiency of organizational maintenance.

- (2) Establish the adequacy and use of technical manuals.
- (3) Determine the adequacy of records, of authorized levels of equipment, of supply economy practices, and of preservation and safekeeping of tools and equipment.

b. Administrative. Administrative inspections are conducted to determine whether the company is complying with prescribed regulations and directives, command headquarters standing operating procedures, and instructions from higher headquarters.

c. Command. Command inspections normally cover such activities as food service, sanitation, discipline, and general military effectiveness.

d. Tactical and Training. Tactical and training inspections are used to evaluate training, to ascertain readiness of the company for field duty, and to correct training deficiencies. Such inspections may be either formal or informal, and they are normally made before the unit is committed to actual field operations. Mobility inspections may also be conducted.

Section VI. MOVEMENT

45. General

It is anticipated that the company will move infrequently. This fact does not preclude, however, the development of a company movement plan. The plan should provide for the assignment of duties incident to the move to subordinate officers and key noncommissioned personnel. It should provide for a warning order to alert company personnel of the impending

move. This affords unit officers the opportunity to prepare their platoons and sections for the move. The plan must be current at all times; and, to insure prompt compliance with movement orders, it should include—

a. Detailed loading tables for personnel, equipment, and supplies.

b. Tables of transportation requirements for rail and air movement.

c. Detailed lists of responsibilities of officers and noncommissioned officers.

d. Instructions for clearance of the area upon company departure.

46. Methods

a. Motor. Movement by motor requires transportation in addition to that organic to the company. The commander must be certain, therefore, that higher headquarters is advised of transportation requirements.

(1) The type of motor movement will depend upon orders received from higher headquarters. If the company is to move in conjunction with other units attached to battalion headquarters, the depot commander will normally submit his movement plan to the battalion commander for consolidation into the movement plan of the battalion.

(2) If an independent move is authorized, the depot commander normally advises battalion headquarters of his plans and transportation requirements. In such instances, the depot commander may be required to supervise the actual movement. To do this, he may be re-

quired to arrange for a reconnaissance of the route and of the area the unit will occupy; to coordinate with higher headquarters controlling the movement; to make provisions for refueling and feeding en route; to prepare plans for the defense of the company or its elements during the move; and to plan the move in such a way that support operations are not unduly interrupted.

b. Rail. Transportation requirements for movement of the company by rail will usually be computed by the transportation officer responsible for the procurement and allocation of rail shipping facilities. Requirements for planning and executing a rail movement are outlined in current Department of the Army Regulations.

c. Air. Air movement normally applies to personnel only. When such a move is directed, the depot commander is normally required to coordinate with battalion and/or higher headquarters in all matters incident to the move. He may be authorized to maintain direct liaison with their transportation facilities involved.

d. Water. When the company moves by ship, the preliminary information required of the depot commander may include passenger lists, tonnages, cubages, and types of packaging of supplies and equipment. He may also be called upon to furnish personnel for liaison duties at the embarkation point.

- (1) Army regulations and directives of Headquarters, USCONARC, prescribe policies and procedures for preparation of units for over-

sea movement. These require unit commanders in the continental United States to maintain current movement tables at all times. They set forth instructions that must be complied with when oversea movement of the unit is required.

- (2) Quartermaster battalion headquarters are responsible for providing supervision and assistance to commanders of subordinate units in the event of oversea movement. Typical actions taken by a quartermaster battalion headquarters are indicated in FM 10-53. Particular situations and local ground rules in theaters of operations will normally require compliance with similar procedures.

CHAPTER 5

SECURITY AND DEFENSE

47. Responsibility

Responsibility for security and defense of the company and the depot it operates rests with the depot commander. Guided by instructions from higher headquarters, he must plan and effect means to protect the unit and its installations against attack. Generally adaptable information on physical security of company installations is contained in FM 19-30. The section leader in the depot headquarters section is the principal assistant charged with supervision of unit defense. He prepares the company defense plan and submits it to higher headquarters for consolidation in the integrated battalion or command defense plan.

48. Defense Plan

a. General. The unit defense plan must be flexible and all-inclusive so that every foreseeable situation can be covered. It should assign definite responsibilities in order to provide the strongest active defense possible with available personnel and weapons. It should be simple, clear, and easily understood by all personnel. It should be rehearsed as often as practicable so that each individual becomes proficient in performing his assigned tasks. Generally, one basic plan should be provided with alternate courses of

action for meeting various types of attack. It should make provision for—

- (1) A warning system.
- (2) Sectors of defense for the various elements of the company.
- (3) Familiarization of personnel with defense positions and duties.
- (4) Use of slit trenches and foxholes.
- (5) Adequate personnel at command post to be used as reserve troops.
- (6) Hasty fortifications protecting vulnerable avenues of approach.
- (7) Camouflage discipline.
- (8) Coordination with adjacent units.
- (9) Plan for perimeter defense.
- (10) Destruction of materiel.
- (11) Armed firefighting crew.
- (12) Medical evacuation plan.

b. Active Defense Measures. A well-organized and effective defense perimeter provides the best system of protection against surprise attack. Defense plans should, therefore, prescribe duties of personnel in establishing a defensive position. Consideration should be given to fields of fire, observation points, routes of approach, and obstacles unfavorable to the enemy. The defense plan should provide for coordination with adjacent units for mutual support and assistance. Such coordination is important in the assignment of sentinel posts, the formation of patrols, and the determination of areas of responsibility.

- (1) *Warning system.* An adequate warning and recognition system is essential to the defense

of the depot. During daylight hours, when the defenses are not at full strength, timely warning of the approach of enemy forces permits occupation of prepared defense positions. A system of passwords, signs, and countersigns provides the unit with a method of recognition and a means of preventing enemy personnel from entering the unit area undetected. The warning system should also include observation posts, trip flares, sentinel posts, and patrols to visit sentinel posts and those areas beyond these posts which may afford locations for enemy observers.

- (2) *Obstacles.* Natural obstacles such as streams, swamps, ravines, and dense woods should be improved with such artificial obstacles as barbed wire, minefields, boobytraps, and roadblocks. The command responsible for the defense of the area will normally provide qualified personnel for this purpose.

c. Passive Defense Measures. As the company possesses a limited number of weapons and personnel for conducting an active defense, the commander must rely heavily on passive defense measures. These are taken to deny the enemy information and observation of company operations and to reduce casualties and damage in the event of enemy attack.

- (1) For conventional ground or air attack, measures should include camouflage, concealment, and dispersion.
- (2) The best defense against air attack is to avoid detection by screening company facilities to the extent possible and by dispersing

facilities to minimize damage. Other protective means include foxholes and slit trenches for individuals, revetments and cuts for vehicles, and cover shelters for equipment. The depot commander should study the terrain to locate natural geographic features such as caves, steep hills, or cuts. He should also determine the existence and condition of manmade structures such as air raid shelters, mines, tunnels, and other underground installations that can be used to protect personnel and materiel. The following factors should be considered in the selection of specific underground facilities:

- (a) There should be more than one exit.
- (b) An adequate air supply is essential.
- (c) There must be a provision for controlling moisture.
- (d) Provisions must be made against sealing off or collapse of the facility.
- (e) The facility must afford adequate operating and storage space for personnel and supplies.

49. Nuclear and CBR Defense

The defense plan, to be complete, must include provisions for protection against nuclear and CBR attack. Air and ground defense plans should make provision for defense against nuclear weapons and CBR agents which may be delivered by aircraft, conventional artillery, missiles, and infiltrating ground forces. The CBR plan for the unit may be prepared as part of the

overall unit defense plan or as an annex to it. All personnel should be trained to recognize nuclear and CBR attacks promptly. Personnel should also be familiar with the first aid measures that can be taken and with the other measures needed to reduce the effects of the damage. The defense plan should include—

a. Instructions for preparing company standing operating procedures for defense against nuclear and CBR attack.

b. Description of a warning system. If practicable, provisions should be included to designate the type of attack.

c. Description of duties of fireguards, security guards, and unit CBR personnel.

d. Instructions for training all personnel in individual protective and first aid measures to be taken in the event of nuclear or CBR attack.

e. Instructions for inspecting materiel received from using units, if contamination is suspected.

f. Methods for segregating equipment known to be contaminated, if equipment cannot be decontaminated by unit personnel. Segregation of such equipment should be accompanied by proper marking of the area as a warning to other personnel.

g. Provisions for maintaining liaison with chemical and medical units for technical advice and assistance.

h. Instructions for use of protective masks, special clothing, and other protective equipment.

i. Instructions for use of protective shelters for personnel and supplies.

j. Procedures for immunization and field sanitation.

50. Rear Area Security and Damage Control

Plans for the defense of rear areas and for area damage control must be utilized concurrently to assure that damage due to a mass-destruction attack or natural disaster is limited. Such plans should include measures to preclude further damage to installations, equipment, and personnel as a result of such secondary effects of the attack or disaster as fires, contamination, or followup action by the enemy.

a. The depot commander should survey his operation and use all means of passive defense at his disposal to lessen the possibility of an attack and to minimize effects of an attack. He should also outline the action to be taken during and following an attack. His plans are normally coordinated by designated headquarters with those of other units.

b. Measures that may be taken prior to an attack include—

- (1) Organization and training of area-defense and damage-control personnel.
- (2) Concealment and dispersion.
- (3) Use of natural cover or protection afforded by terrain features.

c. Measures that may be taken during or immediately following an attack or natural disaster include—

- (1) Control of military and civilian personnel and traffic.
- (2) Active defense against guerrilla or airborne action.
- (3) Fire prevention and firefighting.
- (4) First aid and evacuation of casualties.

- (5) Protection against chemical, biological, and radiological hazards, including movement from heavily contaminated areas.
- (6) Emergency supply of food, clothing, and water.
- (7) Initiation of salvage operations and the clearance of debris and other obstructions from roads and installations so that normal operations may be resumed.

APPENDIX I

REFERENCES

1. Army Regulations

- 55-series Transportation and Travel
- 220-58 Organization and Training for
Chemical, Biological, and Radi-
ological Warfare.
- 220-70 Companies; General Provisions
- 220-345 Unit Histories
- 220-346 Journals and Journal Files
- 310-3 Military Publications—Prepara-
tion, Coordination and Ap-
proval.
- 320-5 Dictionary of United States Army
Terms.
- 320-50 Authorized Abbreviations and
Brevity Codes.
- 335-60 Morning Reports
- 345-250 Record Administration; Manage-
ment and Planning Files.
- 355-5 Troop Information—General Pro-
visions.
- 611-101 Manual of Commissioned Officer
Military Occupational Spe-
cialties.
- 611-112 Personnel Selection and Classifi-
cation Manual of Warrant
Officer Military Occupational
Specialties.

- 611-201.....Manual of Enlisted Military Occupational Specialties.
- 700-15.....Preservation, Packaging, and Packing.
- 735-3.....Receipt, Shipment, and Issue of Property.
- 735-10.....Principles and Policies; Accounting for Lost, Damaged, and Destroyed Property.
- 750-5.....Organization, Policies and Responsibilities for Maintenance Operation.
- 750-8.....Command Maintenance Inspections.
- 750-15.....Maintenance Readiness and Field Maintenance Costs.
- 750-1670-2....Maintenance of Quartermaster Air Delivery Equipment.

2. Special Regulations

- 55-seriesTransportation and Travel

3. Department of the Army Pamphlets

- 108-1.....Index of Army Motion Pictures, Film Strips, Slides, and Phonorecordings.
- 310-1.....Index of Administrative Publications.
- 310-2.....Index of Blank Forms
- 310-3.....Index of Training Publications
- 310-4.....Index of Technical Manuals, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.

310-7.....Index of Tables of Organization and Equipment, Type Tables of Distribution, and Tables of Allowances.

4. Field Manuals

5-20.....Camouflage, Basic Principles and Field Camouflage.

5-25.....Explosives and Demolitions

10-7.....Quartermaster Organization and Operations in Divisions.

10-10.....Quartermaster Service in Theaters of Operations.

10-13.....Quartermaster Reference Data

10-17.....Quartermaster Organization and Service in Army and Corps.

10-53.....Headquarters and Headquarters Detachment, Quartermaster Battalion.

21-5.....Military Training

21-6.....Techniques of Military Instruction.

21-10.....Military Sanitation

21-11.....First Aid for Soldiers

21-15.....Care and Use of Individual Clothing and Equipment.

21-20.....Physical Training

21-26.....Map Reading

21-30.....Military Symbols

21-40.....Small Unit Procedures in Nuclear, Biological, and Chemical Warfare.

- 21-41.....Soldier's Handbook for Nuclear,
Biological, and Chemical War-
fare.
- 21-48.....Chemical, Biological, and Nuclear
Training Exercises and Inte-
grated Training.
- 21-75.....Combat Training of the Indi-
vidual Soldier and Patrolling.
- 25-10.....Motor Transportation, Opera-
tions.
- 31-15.....Operations Against Irregular
Forces.
- 100-5.....Field Service Regulations; Opera-
tions.
- 100-10.....Field Service Regulations; Admin-
istration.
- 101-5.....Staff Officers' Field Manual; Staff
Organization and Procedure.
- 101-10.....Staff Officers' Field Manual; Or-
ganization, Technical, and Lo-
gistical Data.

5. Technical Manuals

- 3-220.....Decontamination
- 10-1101.....Petroleum-Handling Operations
- 10-1103.....Quartermaster Petroleum-Han-
dling Equipment.
- 10-1105.....Testing Petroleum Products
- 10-1309.....Quartermaster Mechanically
Driven Field Refrigeration
Equipment.

- 10-1310BRefrigerating Unit, Electric Motor Driven, $\frac{1}{3}$ -Ton Capacity (U. S. Thermo Model Q-15-E).
- 10-1311Refrigerating Unit, Gasoline-Engine-Driven, $\frac{1}{3}$ -Ton Capacity (U. S. Thermo Model Q-15-G), for Refrigerator, Portable, 150 Cubic Foot Capacity.
- 10-1312Refrigerating Unit, Gasoline-Engine-Driven, $\frac{1}{3}$ -Ton Capacity (Keco Model F-5G).
- 10-1366Refrigerating Unit, Gasoline-Engine-Driven, $\frac{1}{2}$ -Ton Capacity (U. S. Thermo Model K-10) and Refrigerating Unit, Mechanical, Panel-Type, Gasoline-Engine-Driven, $\frac{3}{4}$ -Ton Capacity (U. S. Thermo Control Model Q-9) for 2-Wheel, Lightweight, $7\frac{1}{2}$ -Ton, Semi-Trailer Refrigerator.
- 10-1619Quartermaster Materials Handling Equipment.

6. Miscellaneous Publications

- JSC Pub. 1Dictionary of United States Military Terms for Joint Usage.

APPENDIX II

ADLOG DEPOT STORAGE DATA*

Class of supply by technical service	Total in one depot (tons)	Tonnage at <i>each</i> of 2 storage locations
Class I	6,840	3,420
Class II and IV:		
Chemical	111	56
Engineer	3,876	1,938
Medical	282	140
Ordnance:		
Repair parts ...	3,624	1,812
Major items ...	4,026	2,013
Quartermaster	1,119	509
Signal	750	375
Transportation	675	338
Class III (oils, greases, lubricants).	1,455	727
Class V:		
Ordnance	18,600	9,300
Chemical	186	93
Totals	41,544	20,771

* Based upon a 15-day level of supply for support of a corps slice.

APPENDIX III

BALOG DEPOT STORAGE DATA*

1	2	3	4
Class of supply	Total tonnage in BALOG (30-day level)	Daily tonnage in each of 5 depots	Total tonnage in each of 5 depots (30-day level)
Class I	70,050	467.00	14,010.00
Class II and IV:			
Chemical	780	5.20	156.00
Medical	3,930	26.20	786.00
Engineer (less solid fuels).	81,750	545.00	16,350.00
Ordnance	63,600	424.00	12,720.00
Signal	7,470	49.80	1,494.00
Transportation ...	11,520	76.80	2,304.00
Quartermaster	9,720	64.80	1,944.00
Class III (pkgd. oil, grease, and lube.).	25,650	171.00	5,130.00
Total	274,470	1,829.80	54,894.00

* Based upon 30-day level of supply for support of a theater army force.

BY ORDER OF THE SECRETARY OF THE ARMY:

G. H. DECKER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

DCSPER (2)	EUSA (2)
DCSLOG (2)	Corps (3)
DCSOPS (2)	Div (3)
ACSRC (1)	Svc Colleges (3)
CARROTC (2)	USAQMS (250)
TQMG (15)	USA Corps (2)
Tech Stf, DA (2)	Units org under fol TOE:
USCONARC (5)	10-22 (2)
ARADCOM (2)	10-446 (2)
OS Maj Comd (3)	10-448 (2)
OS Base Comd (3)	10-467 (15)
LOGCOMD (5)	10-521 (5)
Armies (CONUS) (2) except	10-536 (5)
Seventh USA (2)	

NG: None.

USAR: Same as Active Army except allowance is one copy to each unit.

For explanation of abbreviations used, see AR 320-50.